

Appl. No. 10/715,069

Amdt. Dated 4/28/2006

Reply to Office action of 12/1/2005 12:00:00 AM

REMARKS:

Reconsideration of the application is requested.

Claims 1, 3-4, and 6-9 are now in the application. Claim 1 has been amended. Claims 8-9 have been added.

In item 1 of the above-identified Office Action, the Examiner objected to the specification because the term "bright" in the phrase "surfaces of the components still being bright" is a relative term that is not quantified. Furthermore, the Examiner rejected claims 1, 3-4, and 6-7 as being indefinite under 35 U.S.C. § 112, second paragraph, for using the same term "bright". Applicants believe that the word "bright" in the context of the invention is a term of art that is definite for the following reasons.

As the Examiner has recognized, in the steel and metallurgical fields, the term "bright" does not refer to the color or shininess of the metal.

Rather, in the steel and metallurgical fields, the term "bright" refers to the oxidation of the surface of the steel. A bright surface has a minimum of oxidation ("minimum" is a practical term because it may be empirically impossible to make steel with absolutely no oxidation). For additional

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support of this understanding, one can search the Internet for terms such as "bright annealing" and "bright steel".

The specification and claims of the instant application discuss a surface that is bright or is only covered with a native oxide layer. This means that the amount of oxide on the surface must fall within a range from a minimal oxide amount (i.e. "bright") to no more than a native oxide layer. Pursuant to this understanding, claim 1 has been amended. Claims 8 and 9 have been added to clarify expressly that the change to claim 1 was not intended to change its scope but rather to clarify claim 1.

To reiterate, the method according to the invention applies to components having surfaces that have oxide layers with a thickness ranging from bright (i.e. minimal) to a native thickness. Regardless, claim 1 no longer includes the term "bright" and accordingly is definite.

Therefore, the specification and claims have a definite meaning that provide a standard by which one with ordinary skill could judge the scope of the invention. It is accordingly believed that the specification and the claims meet the requirements of 35 U.S.C. § 112, second paragraph. The above-noted changes to the claims are provided solely for clarification or cosmetic reasons. The changes are neither

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provided for overcoming the prior art nor do they narrow the scope of the claim for any reason related to the statutory requirements for a patent.

In item 3 of the above-identified Office Action, claims 1, 3-4, and 6-7 have been rejected as being obvious over Hettiarachchi '893 under 35 U.S.C. § 103(a).

To begin, when interpreting the claim, as discussed above, the Examiner correctly understood the term "bright" to mean a minimal possible oxidation or substantially non-oxidized.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and, therefore, the claims have not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Claim 1 calls for, *inter alia*, a method for protecting components of a primary system of a reactor, the method includes the following steps:

providing an alcohol selected from the group consisting of methanol, ethanol, and propanol;

continuously feeding the alcohol into a primary coolant to maintain an alcohol concentration of from 0.1 to less than 10  $\mu\text{mol/kg}$  in a downcomer, the

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downcomer extending downward at an opening of the feedwater line, with surfaces of the components being covered by no more than a native oxide layer.

Hettiarachchi '893 describes a method for reducing the stress corrosion cracking, in which an organometallic compound is, *in situ*, metered into the primary coolant. The organometallic compound is decomposed by metal separation under operational conditions of a nuclear reactor. The metal atoms or ions are deposited in the native oxide layer of the component surface. Alcohol is used as a solvent for the antioxidation compound, i.e. the organometallic compound. See Hettiarachchi '893, col. 5, ll 48-61. Hettiarachchi '893 does not teach to use the alcohol as an antioxidation compound.

The Examiner has incorrectly concluded that Hettiarachchi '893 would suggest to one with ordinary skill in the art to use alcohol without the organometallic compound. The conclusion is incorrect because one with ordinary skill in the art reading Hettiarachchi '893 would not be taught or suggested to eliminate exactly the measure of causing the reduction of the stress corrosion cracking (i.e. the organometallic compound) and to try instead to reduce the stress corrosion cracking by merely metering in an alcohol (which, as stated, was used as a solvent for the above-mentioned organometallic compound) (see column 9, ll 41-67).

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The coincidence that Hettiarachchi '893 teaches an alcohol solution within a range that is claimed in the in the instant application is not enough. Hettiarachchi '893 fails to teach the mechanism of the interaction between the alcohol and the components with minimal oxide layer. See specification, p. 5, l. 15, through p. '6, l. 6.

Clearly, Hettiarachchi '893 would not make a method of feeding alcohol to be oxidized to reduce the corrosion potential of components in a reactor as recited in claim 1 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

In view of the foregoing, reconsideration and allowance of claims 1, 3-4, 6-9 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

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Petition for extension is herewith made. The extension fee for response within a period of two months pursuant to Section 1.136(a) in the amount of \$450.00 in accordance with Section 1.17 is enclosed herewith.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



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